

4. Notes on the Rails of the Argentine Republic.

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The Carau or Courlan (*Aramus scolopaceus*) has been called "an abnormal relative of the Rails at the most;" but in habits and appearance it is certainly near akin to them.

The beak of this bird is nearly 5 inches long, straight, and of an iron hardness; the tip is slightly bent to one side, the lower mandible somewhat more than the upper. The tongue extends to the extremity of the beak; at the end it is of a horny toughness, and frayed or split into filaments. This beak is a most effective instrument in opening shells; for where mollusks abound the Courlan subsists exclusively on them, so that the margins of the streams which this bird frequents are strewn with innumerable shells lying open and emptied of their contents.

Every shell has an angular piece, half an inch long, broken from the edge of one valve. Mussels and clams close their shells so tightly that it would perhaps be impossible for a bird to insert his beak, however knife-like in shape and hardness, between the valves in order to force them open; therefore I believe the *Aramus* first feels the shell with his foot whilst wading, then with quick dexterity strikes his beak into it before it closes, and so conveys it to the shore. It would be most difficult for the bird to lift the closed shell from the water and carry it to land; but supposing it could do this, and afterwards succeeded in drilling a hole through it with its beak, the hole thus made would have jagged edges, and be irregular in shape; but it is, as I have said, angular and with a clean edge, showing that the bird had just thrust his beak half an inch or an inch between the valves, then forced them open, breaking the piece out during the process, and probably keeping the shell steady by pressing on it with the feet.

By day the *Aramus* is a dull bird, concealing itself in dense reed-beds in streams and marshes. When driven up he rises laboriously, the legs dangling down, and mounts vertically to a considerable height. He flies high, the wings curved upward and violently flapped at irregular intervals; descending, he drops suddenly to the earth, the wings motionless, pointing up, and the body swaying from side to side, so that the bird presents the appearance of a falling parachute. On smooth ground he walks faster than a man, striking out his feet in a stately manner and jerking the tail, and runs rapidly ten or twelve yards before rising. At the approach of night he becomes active, uttering long clear piercing cries many times repeated, and heard distinctly two miles away. These cries are most melancholy, and, together with its mourning plumage and recluse habits, have won for the *Aramus* several pretty vernacular names. He is called the "Lamenting Bird" and the "Crazy Widow," but is more familiarly known as the "Carau."

Near sunset the Caraus leave the reed-beds and begin to ascend

the streams and visit their favourite fishing-sites. They are very active at night, retiring again at the approach of morning, and sometimes spend the day perched on trees.

As the breeding-season draws near they become exceedingly clamorous, making the marshes resound day and night with their long wailing cries. The nest is built amongst the rushes, and contains ten or twelve eggs, large for the bird, slightly elliptical, sparsely marked with large blotches of pale brown and purple, the whole egg having a cloudy appearance. When the nest is approached, the parent birds utter sharp angry notes as they walk about at a distance from the intruder. Young and old birds live in company till the following spring.

The Carau is more nocturnal than the Rails, and, having a far more powerful flight, takes to wing more readily: in general appearance, and in its gestures and motions when on the ground and when rising, it closely resembles them.

The Jacana (*Parra jacana*), arrives from the north in Buenos Ayres early in October, coming singly or in small parties. In their migration they appear to follow the course of the Plata: and, though some individuals are found breeding inland, they are for the most part confined to the littoral marshes.

The Jacanas journey by very easy stages, frequently alighting to rest by the way; for they are so incapable of sustained flight that boys on the pampas occasionally take them, pursuing them on horseback till the birds drop down exhausted. I believe the migratory Rails travel in the same way—a matter not easily determined, as they migrate by night; but they are feeble-winged creatures, and when driven to rise flutter away as if wounded. I have observed the Jacanas migrating by day, but would not for this reason affirm that they do not journey by night, since the Bartram's Sandpiper and other species journey both day and night.

The Jacana flies swiftly, in a straight line and close to the surface: the wings flutter rapidly; and there are frequent intervals of gliding. When rising it presents a most novel appearance, as the lovely pale green of the wings is quite concealed when the bird is at rest; the beauty of its flight is thus greatly enhanced by the sudden display of a hue so rare and delicate. At a distance from the beholder, and in a strong sunshine, the wings appear of a shining golden yellow. Not only when flying does the Jacana make a display of its beautiful wings; without rising it has a way of exhibiting them, appearing to delight as much in them as the Cockatoo does in its crest or the Peacock in its train. When several of these birds live in company, occasionally they all in one moment leave their feeding, and with quick excited notes, and clustering together in a close group, go through a singular and pretty performance, all together holding their wings outstretched and agitated, some with a rapid fluttering, others a slow-moving leisurely motion like that of a butterfly sunning itself. The performance over, the birds peaceably scatter again. I have never observed Jacanas fighting.

Soon after coming they pair, and build a simple nest with few

materials, usually on the floating weeds; the eggs are four, in shape like Snipes' eggs, and have deep-brown spots on a pale yellowish-brown ground. During incubation the male keeps guard at some distance from the nest, and utters a warning cry at the approach of an intruder; the female instantly flies from the nest, but in rising renders herself very conspicuous. When the nest is approached the parent birds hover about, occasionally fluttering as if wounded, all the time keeping up a clamour of hurried angry notes somewhat resembling the barking cries of the Black-collared Stilt.

The Jacana has always appeared to me strictly diurnal in its habits.

Some of our Rails and Rail-like birds I will pass over, either because I have not learnt their habits or have failed to discover any thing interesting in them not known already, as in the case of our two species of *Fulica*.

I will mention, in passing, that the Bartram's Sandpiper (*Actiturus bartramius*), judging purely from its habits, is a near relation of the Rails. This species, I believe, has not had a place assigned it in the Argentine avifauna—a strange oversight; for it is one of our commonest birds.

I will now give a brief account of *Rallus rhytirhynchus*, of *Porzana erythroptis*, and of that king of Rails the *Aramides ipecaha*.

The Black Rail (*Rallus rhytirhynchus*) abounds everywhere in the La-Plata region where reeds and rushes grow. They are always apparently as abundant in winter as in summer; this fact has surprised me greatly, since I know this species to be migratory, their unmistakable cries being heard overhead every night in spring and autumn, when they are performing their distant journeys. Probably all the birds frequenting the inland marshes on the south-western pampas migrate north in winter; and all those inhabiting the shores of the La Plata and the Atlantic sea-board, where there is abundant shelter and a higher temperature, remain all the year. On the Rio Negro of Patagonia the Black Rails are resident; but the winter of that region is mild; moreover the wide expanse of barren waterless country lying between the Rio Negro and the moist pampas region would make migration from the former place impossible to such a feeble flyer. Of this instinct we know at least that it is hereditary; and it is hard to believe that from every one of the reed-beds distributed over the vast country inhabited by the Black Rail a little contingent of migrants is drawn away annually to winter elsewhere, leaving a larger number behind. Such a difference of habits cannot possibly exist amongst individuals of a species in one locality; but differences, in the migratory as in other instincts, great as the one I have mentioned, are found in *races* inhabiting widely separated regions.

It is difficult to flush the Black Rails; they rise in a weak fluttering manner, the legs dangling down, and after flying forty or fifty yards drop again into the reeds. Their language is interesting. When alarmed the bird repeats, at short intervals, a note almost painful from its excessive sharpness; it utters it standing on a low branch or other elevation, but well masked by reeds and bushes, and incessantly bobbing its head, jerking its tail, and briskly turning

from side to side. It has at such times a very sprightly appearance, whilst the long tricoloured beak, the blood-red eye, and vermilion legs admirably contrasting with the fine dark plumage, give it some claims to beauty. At other times it has a hollow call-note with a puzzling ventriloquism in the sound; this note is sometimes repeated at brief intervals for an hour at a time; and whilst uttering it the bird stands, as usual, on a slight eminence, but in a listless attitude, and without any of the nods and becks and other frisky gestures. It has also a kind of song, frequently heard; the common people fancy it resembles the distant braying of an ass; hence the vernacular name "Burrito," by which the bird is known in the Plata. It is heard occasionally in the day, but oftenest in the evening, and is a confused performance, uttered without pause, and composed of several long shrill notes, modulated and mingled with others hollow and booming. These notes can be heard a thousand yards away; but far or near they always sound remote.

I can say little of *Porzana erythroptera*, called with us "Gallineta," or Little Hen, though it visits Buenos Ayres annually, breeds, and is abundant there. In language and habits it is like a Coot, not often seen on land, and feeding principally as it swims about in a jerky manner amongst the floating weeds. It appears in October, migrating exclusively, I think, by night; and after the autumnal departure an individual is rarely seen. By day they are shy and retiring, but scatter abroad in the evening, frequently uttering their strange hollow cry, called "witch-laughter" by superstitious people, and resembling a sudden burst of hysterical laughter, the notes beginning loud and long, becoming brief and hurried as they die away.

The *Aramides ipicaha*, called in Buenos Ayres "Gallineta," is a most interesting bird. Without any brilliant tints, there is something so pleasing to the eye in the various hues of its plumage—light brown and drab-colour, blue, grey, buff, and black—all these colours so harmoniously disposed (the effect heightened by the yellow beak, golden-red eye, and vermilion legs), that I do not know a handsomer waterfowl.

They are found as far south as the thirty-fifth parallel of latitude, and are most abundant along the marshy borders of the Plata, frequenting the vast reed-beds and forests of water-loving *Erythrina crista-galli*. When they are not persecuted they are bold pugnacious birds, coming out of the reeds by day and attacking the domestic poultry about the houses and even in the streets of the villages situated on the borders of their marshy haunts. But when compelled to place Man on the list of their enemies, it is a difficult matter to get a sight of one; for, like all birds that rise laboriously, they are vigilant to excess, and keep themselves so well concealed that one may pass through their haunts every day of the year, and the *Ipicaha* still be to him no more than a "wandering voice." But even persecution does not entirely obliterate a certain inquisitive boldness that is one of the strongest traits of their character. Usually they roam singly in quest of food, but have reunions in the evening and occasionally during the day, especially in gloomy weather.

Where there are forests, and on misty or rainy days, they stray to a distance from the reeds. They walk with an easy and somewhat stately grace, jerking up the tail, Rail-like, at every stride, and run with a velocity no man can equal. Occasionally they perch on trees, and are fond of strutting to and fro on a horizontal branch.

When surprised on the open ground the Ipecaha lies close, like a Tinamou, refusing to rise until almost trodden upon. It springs up with a loud-sounding whirr, rushes violently through the air, till, gaining the reeds, it glides a few yards and then drops: its flight is thus precisely like that of the Tinamou, and is more sounding and violent than that of the Grouse or Partridge. On spying an intruder it immediately utters a powerful cry, in strength and intonation not unlike that of the Peafowl. This note of alarm is answered by other birds at a distance as they hastily advance to the spot where the warning was sounded. The cry is repeated at irregular intervals, first on one hand, then on the other, as the birds change their position to dog the intruder's steps and inspect him from the reeds. I have surprised parties of them in an open space, and shot one or more; but no sooner had the survivors gained their refuge than they turned about to watch and follow me, sounding their powerful alarm the whole time. I have frequently been followed half a mile through the rushes, by them, and, by lying close and mimicking their cries, have always succeeded in drawing them about me.

But the Ipecaha's loudest notes of alarm are weak compared with the cries he utters at other times, when, untroubled with a strange presence, he pours out his soul in screams and shrieks that amaze the listener with their unparalleled power. These screams, in all their changes and modulations, have a resemblance to the human voice, but of the human voice exerted to its utmost pitch, and expressive of agony, frenzy, and despair. A long piercing shriek, astonishing for its strength and vehemence, is succeeded by a lower note, as if in the first one the creature had well-nigh exhausted itself. The double scream is repeated several times; then follow other sounds, resembling, as they rise and fall, half-suppressed cries of pain and moans of anguish. Suddenly the unearthly shrieks are renewed in all their power. This is kept up for some time, several birds screaming in concert; it is renewed at intervals throughout the day, and again at set of sun, when the woods and marshes resound with the extravagant uproar. I have said that several birds unite in screaming; this is invariably the case. I have enjoyed the rare pleasure of witnessing the birds at such times; and the screams then seem a fit accompaniment to their disordered gestures and motions.

A dozen or twenty birds have their place of reunion on a small area of smooth clean ground surrounded by reeds; and by lying well concealed and exercising some patience one is enabled to watch their proceedings. First one bird is heard to utter a loud metallic-sounding note, three times repeated, and somewhat like the call of the Guinea-fowl. It issues from the reeds, and is a note of invitation quickly responded to by other birds on every hand as they all

hurriedly repair to the customary spot. In a few moments, and almost simultaneously, the birds appear, emerging from the reeds and running into the open space, where they all immediately whirl about and begin the exhibition.

Whilst screaming they rush from side to side as if possessed with frenzy, the wings spread and agitated, the beak wide open and raised vertically. I never observed them fight or manifest anger towards each other during these performances; and, knowing the pugnacious spirit of the *Ipicahas*, and how ready they are to seek a quarrel with birds of other species, this at first surprised me; for I was then under the mistaken impression that these gatherings were in some way related to the sexual instinct.

Whilst watching them I also remarked another circumstance. When concealing myself amongst the rushes I have been compelled to place myself so disadvantageously, owing to the wet ground, that any single bird straying accidentally into the open space would have discovered my presence immediately; yet the birds have entered and finished their performance without seeing me; so carried away are they by the emotion that possesses them during these moments. But no sooner has the wild chorus ended than, aware of my presence, they have fled precipitately into the reeds.

How could this curious habit I have described, and which cannot be considered advantageous, have originated? It is simply that this species has a somewhat singular way of giving expression to an instinctive feeling common to all creatures. Many birds and mammals have social gatherings, peaceful like those of the *Ipicaha*; and if seen to fight, these are but playful engagements; for the emotion that calls them together is a joyous one. It manifests itself so variously in different species that a person might easily be led to believe that the displays he observes are, in many instances, inspired by the sexual passion.

The *Ibis melanotis*, the Glossy Ibis, the Black-collared *Himantopus*, and the Spurred-winged Lapwing also hold similar exhibitions. The last-named species has a far more remarkable performance on the ground, aptly called "dancing" by the Argentine peasants; for the birds, in twos and threes, run and whirl about and stand bowing till their beaks touch the ground, all the time regulating their movements to drumming rhythmic notes.

The Chimangos (*Milvago*) frequently have meeting-places where they circle about, sportively quarrelling in the air, then rest, each one on his separate perch; and at intervals one bird utters a long and song-like cry, followed by a succession of short notes, in which all the birds join as in a chorus.

Males and females of many species in which the sexes are always faithful sing and scream together in a jubilant manner at intervals through the day. This habit is most remarkable in the Oven-bird (*Furnarius*): these stand together facing each other, singing their shrill excited song, all the while beating their outspread wings in time with the notes, and each bird taking a part, so that the performance produces the effect of harmony.

The Chajas (*Chauna chavaria*) also sing in concert, "counting the hours," as the Gauchas say; for they sing about nine o'clock in the evening and again just before dawn.

Still more remarkable is the habit in the Scissor-tail (*Milvulus tyrannus*); for these birds are not gregarious, and yet once a day they rise up and, hurrying from tree to tree, summon each other to a general gathering; then, mounting with sharp chirping notes, they precipitate themselves violently downwards from a great height, their long tails opening and closing, their zigzag flight accompanied with impetuous "whetting" and "grinding" notes.

The Tinamous unite in small coveys and play, running about in circles, rapidly doubling and suddenly crouching as if to conceal themselves.

Tyrant-birds and Thrushes chase each other screaming through the air and amongst the trees. Hard-billed singing-birds sing in concert on trees and bushes, and sometimes pursue each other and fight all the time they are singing. Some Ducks fight mock battles on the water. The habit is different in the Chiloe Widgeon (*Mareca chilensis*); for this Duck has an easy and powerful flight. In small flocks they rise until they become mere specks in the sky; at that vast height they hover, all the time singing their shrill notes, and close and separate and close again; and every time they close they slap each other so smartly with their wings that the blows can sometimes be heard when the birds have quite vanished from sight.

Many mammals also have meetings and rejoice together, some species even having set performances; but the habit is less noticeable in them, as they are not so impressionable by nature as birds, and are also less buoyant in their motions, and less garrulous.

In all the instances I have given, the sexual passion is in no way concerned; for these gatherings and displays take place at all seasons of the year, and are in some cases less frequent during the season of courtship. It is impossible to doubt that the cause is simply the natural gladness felt by all sentient beings at times, when hunger is satisfied and they are free from the restraints imposed by other emotions. It is to a great extent an associate feeling, and, in species accustomed to meet and to indulge in it with frequency, is instantaneously communicated from one to the other. Every shepherd and herdsman on the pampas is familiar with the fits of joy that seize his domestic or semi-domestic cattle. Thus a lamb in a flock will suddenly spring up two or three times in quick succession, coming down on his four feet together; and instantly his companions become possessed with a joyous contagion, and, breaking away from their dams, they fly off in pursuit. Suddenly they all stop and group themselves together; but in a few moments another lamb springs up and bounds away, and the chase is renewed.

It is not to be wondered at that some species should have not only a definite and unchangeable manner of manifesting their joyousness, but should give it such extravagant expressions as, for example, the Ipecaha does, whilst in others it shows itself in the most subdued manner or not at all; for some animals are incapable of ex-

pressing even feelings so violent as pain, fear, anger, and solicitude for their young. But that the feeling exists at times in all I am pretty sure, even in so melancholy a creature as the Heron.

Probably the concert-screaming of Foxes and Monkeys and many other animals, the pretty "showing-off" of Jacanas and other birds, and the aerial vagaries of Snipes, accompanied by peculiar sounds called "bleating" or "drumming," and a hundred more strange performances are due to the same cause.

5. On the African Rhinoceroses.

By the Hon. W. H. DRUMMOND.

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I believe that at present naturalists have arrived at no decided conclusions as to the number of species of Rhinoceros inhabiting Africa; and as I have had some practical experience on the subject I beg leave to offer these few remarks for their consideration.

As far as my own experience and the inquiries I have made of natives well acquainted with the facts, and of European travellers and hunters who were equally qualified to offer an opinion, have gone, I believe, in accordance with the recorded opinions of most travellers and sportsmen who have given any attention to the subject, that there are four distinct species; while if *R. oswellii* be not merely a variety of *R. simus*, as I am inclined to think it is, it would follow that there was one more. These I would class as follows:—*R. simus*, the "Mohohu" of the Bechuanas, and the "Umkave" or "Umkombewoquobo" of the Amazulu, Amatabili, and Ama Tonga tribes; *R. keitloa*, the Keitloa of the west, and Umkombe Tovote of the east; *R. bicornis major*, the greater black species, known as the Kulumane on the eastern side, while in South Central Africa (I mean the country north of the Transvaal Republic, and south of the Zambesi) it is, I believe, known as the "Borele;" and *R. bicornis minor*, the small black species, known up to the Limpopo as the "Upetyane," and among the Dutch republics to the north as the "Klin rhinaster." To these must, I suppose, be added *R. oswellii*, or the "Kabaoba," until we are in a position to prove conclusively that it is merely a variety, as I think, for reasons hereafter to be stated, will ultimately prove to be the case.

Of the above, *R. simus* and *R. oswellii* are those generally known as the "white," while *R. keitloa*, *R. bicornis major*, and *R. bicornis minor* are called the "black;" and before proceeding further I should like to say a few words about the nomenclature I have made use of, and which (with the exception of the introduction of what I believe to be a distinct species, which for want of a better name I have called *R. bicornis minor*, the Small Black Rhinoceros or Upetyane) is the nomenclature I believe to be in general use. The distinction, however, of black and white seems to me misleading and misapplied, all Rhinoceroses being of the same colour, namely a peculiar shade